UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/982,589 | 10/17/2001 | Tuomo Hokkanen | 975.365USW1 | 7571 |

22865 7590 05/24/2002

ALTERA LAW GROUP, LLC
6500 CITY WEST PARKWAY
SUITE 100
MINNEAPOLIS, MN 55344

| EXAMINER | |
|---|---|
| YUN, EUGENE | |
| **ART UNIT** | **PAPER NUMBER** |
| 2683 | |

DATE MAILED: 05/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 09/982,589 | HOKKANEN, TUOMO |
| | Examiner | Art Unit |
| | Eugene Yun | 2683 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 27-51 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 27-51 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 17 October 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The disclosure is objected to because of the following informalities: The terms "predetermined occasion" and "attachment procedure" is not specified in the specification. The examiner assumes that the applicant is referring to anything that attaches the mobile station to the communication network.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 27-38, and 43-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Dennison et al. (US 5,546,445).

Referring to Claim 27, Dennison teaches a method for performing a handover procedure for a mobile station communicating in a communication network and being movable therein, said communication network comprising a plurality of base transceiver stations being adapted to perform a communication with said mobile station within its coverage area (see ABSTRACT), said method comprising the steps of:

processing location information related to the mobile station by comparing it with position information related to the base transceiver stations (see col. 6, lines 54-63);

deciding on the basis of the result of said processing, whether a first handover condition is fulfilled (see col. 5, lines 54-55), and checking subscriber specifications concerning another measurement for a handover (see col. 6, lines 5-9);

designating a next base transceiver station in said communication network, to which the communication with said mobile station is to be directed from a current base transceiver station, when the first handover condition is fulfilled (see col. 5, lines 39-42);

triggering a handover of the communication connection of the mobile station from the current base transceiver station to the next base transceiver station designated in said designating step (see col. 5, lines 55-56); and

performing the handover (see col. 5, lines 42-43).

Referring to Claim 43, Dennison teaches a device for controlling a handover procedure for a mobile station communicating in a communication network and being movable therein, said communication network comprising a plurality of base transceiver stations being adapted to perform a communication with said mobile station within its coverage area (see ABSTRACT), said device comprising:

a processing means for processing location information related to the mobile station by comparing it with position information related to the base transceiver stations (see col. 6, lines 54-63), and for deciding on the basis of the result of said processing, whether a first handover condition is fulfilled (see col. 5, lines 54-55), and for checking subscriber specifications concerning another measurement for a handover (see col. 6, lines 5-9);

a designating means for designating a next base transceiver station in said communication network, to which the communication with said mobile station is to be directed from a current base transceiver station, when the first handover condition is fulfilled (see col. 5, lines 39-42); and

a triggering means for triggering a handover of the communication connection of the mobile station from the current base transceiver station to the next base transceiver station designated by said designating means (see col. 5, lines 55-56).

Referring to Claims 28 and 44, Dennison also teaches at least one additional parameter processed together with said location information related to the mobile

station and position information related to the base transceiver stations (see second half of ABSTRACT).

Referring to Claims 29 and 45, Dennison also teaches said additional parameter based on signal quality (see last sentence of ABSTRACT).

Referring to Claims 30 and 46, Dennison also teaches determining said location information related to the mobile station and transmitting said determined location to a respective network device adapted to perform said processing step (see col. 5, lines 31-36).

Referring to Claim 31, Dennison also teaches said step of determining said location information related to the mobile station executed in the mobile station (see col. 6, lines 11-22).

Referring to Claim 32, Dennison also teaches said step of determining said location information related to the mobile station executed in a network element on the network infrastructure side (see col. 5, lines 27-32).

Referring to Claims 33 and 50, Dennison also teaches determining said location information related to the mobile station based on the method of locating by a global positioning system (see col. 5, lines 24-25).

Referring to Claim 34, Dennison also teaches said location obtaining step executed periodically (see col. 8, lines 1-4).

Referring to Claims 35 and 36, Dennison also teaches said location obtaining step executed upon predetermined occasions wherein said predetermined occasion is

an attachment procedure of the mobile station to the communication network (see col. 5, lines 27-31).

Referring to Claims 37 and 51, Dennison also teaches checking whether a further measurement is to be performed, selecting a type of further measurement, if a measurement is to be performed, executing the measurement selected in said selected step, verifying whether a measurement result represents a second handover condition, and if the result of said verifying step represents the second handover condition, initiating execution of said target cell designation step for performing the handover (all in fig. 11B).

Referring to Claim 38, Dennison also teaches the coverage area of the base transceiver station designated in said designating step and to which the communication connection is to be directed as a coverage area adjacent to the coverage area of the current base transceiver station (see fig. 1).

Referring to Claim 47, Dennison also teaches a memory means 30 (fig. 8) for memorizing location information related to the mobile station and position information related to the base transceiver stations.

Referring to Claim 48, Dennison also teaches said means for determining location information related to the mobile station and for transmitting said determined location information to a respective network device performing said processing located in the mobile station (see col. 6, lines 11-22).

Referring to Claim 49, Dennison also teaches said means for determining location information related to the mobile station and for transmitting said determined

location information to a respective network device performing said processing located in a network element on the network infrastructure side (see col. 5, lines 27-32).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dennison in view of Menich (WO 93/19560).

Referring to Claim 39, Dennison does not teach the coverage area of the base transceiver station designated in said designating step and to which the communication connection is to be directed as a coverage area not adjacent to the coverage area of the current base transceiver station. Menich teaches the coverage area of the base transceiver station designated in said designating step and to which the communication connection is to be directed as a coverage area not adjacent to the coverage area of the current base transceiver station (see ABSTRACT). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Menich to said method of Dennison in order to reduce unnecessary power waste in a communication network.

Referring to Claim 40, Menich also teaches the coverage area not adjacent to the coverage area of the current base transceiver station to which the communication

connection is to be directed is known to the communication network (see pg. 5, lines 9-11).

Referring to Claim 41, Menich also teaches the base transceiver station with the coverage area not adjacent to the coverage area of the current base transceiver station, to which the communication connection is to be directed, is a predetermined base transceiver station (see pg. 5, lines 11-14).

Referring to Claim 42, Menich also teaches the position information of the predetermined base transceiver station stored in the mobile station (see pg. 7, lines 1-6).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eugene Yun whose telephone number is (703) 305-2689. The examiner can normally be reached on 8:30am-5:30pm Alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William G Trost can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Eugene Yun
Examiner
Art Unit 2683

EY
May 14, 2002

Lee Nguyen
Primary Examiner